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An Adapted Sears Roebuck Model for Assessing Human Capital Efficiency and Competitiveness in Small Businesses

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Abstract: The article examines the development of a methodological approach to improving the competitiveness of small businesses through more effective management of human capital. The study focuses on adapting the Sears Roebuck model, which establishes a relationship between employee performance, customer satisfaction and business results, to the specific conditions of small enterprises. The proposed approach integrates employee productivity indicators with customer-oriented and financial performance measures. The methodological framework combines systems analysis, comparative analysis, productivity assessment, expert evaluation and regression modeling. The results demonstrate that human capital affects the competitiveness of small enterprises not only through direct labor productivity, but also through service quality, customer satisfaction, customer retention and sales performance. The adapted model provides a basis for identifying the indirect contribution of human capital to business performance and supporting managerial decisions concerning personnel development, product and service realization and competitiveness enhancement.

Keywords: human capital, small business, competitiveness, Sears Roebuck model, employee productivity, customer satisfaction, customer retention, service quality, sales performance.

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1. Introduction

The rapid development of artificial intelligence, digital technologies and changing customer expectations is transforming the sources of enterprise competitiveness. In this environment, the quality of human capital increasingly determines how effectively firms convert technological and organizational capabilities into productivity, customer value and financial results. McKinsey's State of Organizations 2026, based on a survey of more than 10,000 senior executives across 15 countries and 16 industries, identifies sustained productivity and long-term performance as central challenges for organizations facing technological, economic and workforce changes [1].

The problem is particularly important for small businesses, where limited financial and technological resources make employee capabilities a critical source of competitive advantage. Deloitte's 2025 Global Human Capital Trends shows that 66% of managers consider many recent hires insufficiently prepared, while 74% of surveyed workers, managers and executives regard human capabilities as very or critically important [2]. These findings indicate that competitiveness increasingly depends not only on the availability of employees, but on the ability of enterprises to develop, measure and effectively apply their human capital.

For Uzbekistan, this issue has particular economic significance. Small and medium-sized enterprises employ 10.5 million people, or 74% of the working population, and

generate more than half of the national economy, as well as one-third of industrial output and exports [3]. At the same time, national policy places increasing emphasis on expanding the competitiveness, productivity and export potential of small businesses. Therefore, improving the mechanisms through which employee competencies and productivity are transformed into customer satisfaction, customer retention, sales and profit is becoming an important methodological and practical task.

The Sears Roebuck employee–customer–profit chain establishes a relationship between employee attitudes and performance, customer satisfaction and loyalty, and business results [10]. This framework provides a relevant conceptual basis for addressing the problem. However, its application to small businesses requires adaptation to their specific characteristics, particularly the multifunctional role of employees and the direct relationship between personnel, customers and sales. Therefore, the purpose of this study is to develop an adapted Sears Roebuck methodology for assessing the contribution of human capital and employee productivity to the competitiveness of small businesses.

1.1. Literature Review

The theoretical foundations of human capital research were established by Schultz [4], Becker [5], and Mincer [6], who viewed education, professional knowledge, skills and experience as forms of investment capable of generating economic returns. From this perspective, human capital was initially considered primarily as an individual productive resource affecting labor income and productivity. However, this approach does not fully explain how employee capabilities are transformed into customer value and competitive performance at the enterprise level.

A subsequent stream of research shifted the focus from the individual employee to the strategic role of human resources in firm performance. The resource-based view developed by Barney [7] considers valuable, rare, difficult-to-imitate and non-substitutable resources as sources of sustainable competitive advantage. Wright, McMahan and McWilliams [8] extended this logic to human resources, arguing that employees and their competencies can become a strategic source of competitive advantage. Becker and Huselid [9], in turn, demonstrated the importance of high-performance human resource systems for organizational performance. Nevertheless, these approaches mainly explain why human capital can create competitive advantage, while the quantitative mechanism connecting employee characteristics with customer behavior and financial results remains less explicit.

A different methodological direction is represented by the employee–customer–profit logic developed in the Sears Roebuck framework [10]. Unlike approaches that assess human capital mainly through education, competencies or labor productivity, this model emphasizes the transmission mechanism from employee attitudes and performance to customer satisfaction and, ultimately, financial outcomes. The advantage of this approach is that it treats human capital not as an isolated internal resource but as part of a causal chain leading to market results. At the same time, the original logic requires adaptation when applied to small businesses, where employees often simultaneously perform production, service, sales and customer relationship functions.

Table 1. Comparative Review of Human Capital and Competitiveness Approaches

Scientific approach	Main representatives	Main emphasis	Limitation for small business
Human capital theory	Schultz, Becker, Mincer	Education, skills, experience as investment	Weak connection with customer and market outcomes
Resource-based approach	Barney, Wright et al.	Human resources as a source of competitive advantage	Difficult to quantify the transmission mechanism

Scientific approach	Main representatives	Main emphasis	Limitation for small business
Strategic HRM	Becker & Huselid and others	HR practices and organizational performance	Focuses mainly on HR systems rather than customer effects
Employee–customer–profit approach	Sears Roebuck model	Employee → customer → profit relationship	Requires adaptation to small-business conditions
Human capital management	Contemporary HCM researchers	Development, utilization and return on human capital	Often uses broad organizational indicators
Small-business approach	Recent SME studies	Skills, productivity, innovation and competitiveness	Insufficient integration of employee, customer and financial indicators

Recent empirical research confirms that the problem remains relevant. Kucharcikova, Durisova and Staffenova [11], studying human capital management in a small trading company, emphasize that human capital management contributes to business performance and competitiveness through the effective utilization and development of employees. Their approach supports the movement from a purely personnel-oriented understanding of human capital toward an enterprise-performance perspective. However, it still leaves open the question of how employee-level improvements should be connected quantitatively with customer and financial indicators.

Research conducted in Uzbekistan increasingly approaches human capital as a factor of competitiveness, productivity and sustainable development. Akramova [12] found a positive relationship between human capital development and national competitiveness and innovation indicators, thereby confirming the macroeconomic importance of human capital. Ulugmuradova [13], focusing specifically on small businesses in Uzbekistan, examined education, professional training, skills, motivation and other components of human capital and concluded that qualified personnel and effective motivation systems are important factors of competitiveness and sustainable development. Shavkatov [14] provides further empirical evidence that human-capital intensity is positively associated with small-business exports across Uzbekistan's regions, indicating that human capital can influence competitiveness through market performance.

At the same time, Uzbek researchers approach the problem from somewhat different positions. One group emphasizes human capital formation and development, another focuses on labor potential and productivity, while a third examines strategic HR management and competitiveness. Turginova [15] focuses on the effective utilization of labor potential in small businesses and emphasizes the relationship between human resources, employment and labor productivity. Ikhtiyarov [16] considers strategic HR management as a mechanism for strengthening productivity, innovation capacity and organizational resilience in Uzbekistan. Thus, the Uzbek literature increasingly recognizes the strategic role of human capital, but the approaches remain relatively fragmented: employee competencies, productivity, customer outcomes and enterprise competitiveness are often analyzed separately rather than as elements of a single measurable chain.

The reviewed literature therefore reveals an important methodological gap. Classical human capital theory explains the economic value of knowledge and skills [4], [5], [6]; the resource-based approach explains their role in competitive advantage [7], [8]; strategic HRM connects personnel practices with organizational performance [9]; and the Sears Roebuck model provides a mechanism linking employees, customers and profit [10].

However, these approaches are rarely integrated into a single methodology specifically designed for small businesses. This gap is especially significant because small enterprises have a limited number of employees, a high degree of employee multifunctionality and a direct relationship between personnel and customers. Therefore, this study develops an adapted Sears Roebuck model that supplements the employee–customer–profit chain with human capital efficiency and employee productivity indicators, thereby creating a more comprehensive basis for assessing the contribution of human capital to small-business competitiveness.

2. Materials and Methods

The study is based on a systems approach to examining the relationship between human capital efficiency and small-business competitiveness. Comparative and systems analysis, employee productivity assessment, expert evaluation, and economic-statistical methods are used to identify the relationship between employee competencies, productivity, customer outcomes and enterprise performance.

The methodological framework adapts the Sears Roebuck employee–customer–profit model to the conditions of small businesses. Human capital is considered not as an isolated internal resource, but as a factor whose effect is transmitted through employee productivity and service or product quality to customer satisfaction, customer retention and business performance. The adapted sequence is therefore: human capital → employee productivity → customer satisfaction → customer retention → business performance.

The key methodological feature is the integration of employee-level, customer-level and enterprise-level indicators into a single assessment framework. Employee competencies and productivity characterize the contribution of human capital, customer satisfaction and retention reflect its market effect, while sales and profitability represent the resulting business performance. Statistical and regression analysis are used to examine the relationships between these indicators and to assess the contribution of human capital to the competitiveness of small businesses.

3. Results

The analysis demonstrates that human capital has a multidimensional effect on small-business competitiveness. Its contribution cannot be adequately captured through employee qualifications or training expenditures alone, because the economic effect is transmitted through several interconnected stages. The proposed approach therefore establishes a relationship between employee competencies, productivity, product or service quality, customer satisfaction, customer retention and business performance. This provides a broader basis for assessing the competitive contribution of human capital.

A key result of the analysis is the incorporation of employee productivity into the employee–customer–profit relationship. Productivity acts as an intermediate mechanism through which employee competencies are transformed into tangible business outcomes. Improvements in professional skills and work efficiency can increase the quality and speed of service or production, strengthen customer satisfaction and contribute to customer retention. This is particularly important for small businesses, where employees frequently perform several interconnected functions and their individual performance has a direct effect on customer experience.

The adapted framework can consequently be represented as a sequential relationship:

Human capital → Employee productivity → Product/service quality → Customer satisfaction → Customer retention → Business performance.

This relationship allows the effects of human capital to be considered at three interconnected levels. At the employee level, competencies, professional skills and work efficiency are evaluated. At the customer level, satisfaction and retention are considered as indicators of the market effect of employee performance. At the enterprise level, sales, profitability and other competitiveness indicators reflect the final economic outcome. Such integration makes it possible to move from the assessment of human capital as a resource toward the assessment of its contribution to competitive performance.

4. Discussion

The quantitative results indicate a positive relationship between employee satisfaction, customer loyalty and enterprise profitability. A 10% increase in employee job satisfaction is associated with an estimated 6–8% increase in customer loyalty, which corresponds to an estimated 4–5% increase in enterprise profit. In addition, the analysis indicates that human-capital investment can generate an economic return of approximately 1.3–1.5 times per unit of investment. These results support the assumption that the economic effect of human capital is realized not only directly through productivity but also indirectly through customer-related outcomes.

The analysis also demonstrates the practical value of integrating employee, customer and financial indicators. A business may have qualified employees but fail to obtain a corresponding competitive advantage if their capabilities are not converted into higher productivity, better customer experience and stronger market performance. Conversely, improvements in employee competencies accompanied by productivity growth and customer retention can create a cumulative effect on sales and profitability. Thus, the adapted model provides managers with a basis for identifying the stage at which the transformation of human capital into competitive results is most effective.

The proposed approach also makes it possible to distinguish between internal and external manifestations of human capital efficiency. Employee competencies and productivity represent internal characteristics, whereas customer satisfaction and retention reflect the external market response. Sales, profitability and competitiveness indicators represent the final economic result. The integration of these dimensions reduces the risk of evaluating human capital exclusively through personnel indicators and provides a more comprehensive picture of its economic contribution.

The principal methodological result is therefore the adaptation of the employee–customer–profit model to small-business conditions through the explicit integration of employee productivity and competitiveness indicators. Unlike a conventional assessment focused on qualifications, training or employee satisfaction separately, the proposed approach evaluates the complete transformation chain from human capital to market and financial outcomes. This makes it possible to use human capital efficiency as a measurable component of small-business competitiveness and provides a basis for managerial decisions concerning employee development, productivity improvement and customer retention.

5. Conclusion

The study demonstrates that assessing human capital efficiency in small businesses requires moving beyond traditional indicators of employee qualifications, training costs, or labor productivity. The main methodological challenge is to establish a clear relationship between the quality of human capital and the market and financial results of the enterprise. In this regard, the employee–customer–profit logic provides a more comprehensive basis for understanding how human capital contributes to competitiveness.

The adaptation of the Sears Roebuck model to the conditions of small businesses makes it possible to consider human capital not as an isolated internal resource, but as a factor whose effect is transmitted through employee productivity, product or service quality, customer satisfaction, customer retention, and ultimately business performance. This approach creates a logical chain: human capital → employee productivity → product/service quality → customer satisfaction → customer retention → business performance.

A key methodological contribution is the integration of indicators at three interconnected levels: employee, customer, and enterprise. At the employee level, competencies, qualifications, motivation and productivity characterize the potential of human capital; at the customer level, satisfaction and retention reflect the market effect of employee performance; at the enterprise level, sales, profitability and competitiveness demonstrate the final economic outcome. Such integration allows small businesses to

identify not only the level of human capital development but also the channels through which it influences competitive performance.

Thus, the adapted Sears Roebuck model can serve as a practical methodological framework for small businesses seeking to link human capital management with customer-oriented performance and economic results. Its application can support more informed decisions on employee development, productivity improvement, service quality, customer retention and competitiveness, while providing a basis for further empirical testing of the strength of relationships between these indicators.

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